

REMARKS***Summary of the Amendment***

Upon entry of the above amendment, claim 24 will have been amended and new claims 44 – 49 will have been entered for consideration by the Examiner. Accordingly, claims 20 – 49 will currently remain pending.

Summary of the Official Action

In the instant Office Action, the Examiner has indicated claims 29 – 32 and 35 – 43 contain allowable subject matter and would be allowable if presented in independent forms that include all the features of their base claims and any intervening claims. Further, the Examiner has rejected claims 20 – 28, 33, and 34 over the art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Acknowledgment of Allowable Subject Matter

Applicant gratefully acknowledges and agrees with the Examiner's indication of that claims 29 – 32 and 35 – 43 contain allowable subject matter and would be allowable if presented in independent forms that include all the features of their base claims and any intervening claims.

While Applicant has not presented any of these claims in independent and allowable form in response to the pending Office Action, the allowable subject matter contained in the identified claims is acknowledged.

Interview with Examiners Nguyen and Kramer

Applicant gratefully acknowledges the courtesy extended to their representative by Examiner Nguyen and Supervisory Kramer in participating in an interview to discuss the instant application. In the interview, Applicant pointed out the distinction between the bellows disclosed and claimed in the instant application and the inter-rolled portion of the nozzle (in convolute form), and pointed out that the applied art fails to anticipate or render obvious the invention.

Traversal of Rejection Under 35 U.S.C. § 102(b)

Applicant traverses the rejection of claims 20 – 28 under 35 U.S.C. § 102(b) as being anticipated by CAREY (U.S. Patent No. 3,711,027). The Examiner asserts CAREY shows all of the recited features of the claims, including a first part 16, a second part 18, and rolling bellows 15. Applicant traverses the Examiner's assertions.

Applicant's independent claim 20 recites, *inter alia*, a closed volume being formed at least in part by a deformable rolling bellows arrangement *coupled between said second part and a fixed part of one of the rocket engine, the aircraft, or the spacecraft*. Applicant submits CAREY fails to show each of the above-noted features of the invention.

While the Examiner asserts element 15 of CAREY is a rolling bellows, Applicant submits the express disclosure of CAREY fails to support the Examiner's asserted position. In this regards, CAREY discloses an intermediate larger diameter portion 15 of a nozzle structure that is initially inter-rolled into a convolute form. As described, this inter-rolled portion of the nozzle structure including portions 15 and 16 are, at best, flexible so as to *unroll* as outer portion 18 extends away from inner portion 16.

Further, Applicant submits that CAREY discloses that the nozzle or “bell-shaped sleeve” is formed of a thin, lightweight heat-resistant material, and it is this material that enables the middle portion of the sleeve to be inter-rolled into convolute form. However, as it is apparent from CAREY’s disclosure that sleeve is a continuous element, Applicant submits that there is no arguable disclosure of the recited deformable rolling bellows arrangement *coupled between said second part and a fixed part of one of the rocket engine, the aircraft, or the spacecraft.*

In this regard, Applicant notes that the entirety of the sleeve is made of the thin flexible material, such that there is no discernable “first part,” “second part,” and “deformable rolling bellows,” described by CAREY. Further, because CAREY does not expressly or even impliedly disclose separate elements forming the bell-shaped nozzle, Applicant submits this document cannot anticipate the invention recited in the pending claims.

Further, as the entirety of the bell-shaped nozzle disclosed and described by CAREY is constructed of a continuous, albeit initially inter-rolled into convolute form, material, Applicant submits this document cannot arguably disclose the expressly recited arrangement of the recited deformable bellows. That is, Applicant’s independent claim 20 recites, *inter alia*, the deformable rolling bellows arrangement is *coupled between said second part and a fixed part of one of the rocket engine, the aircraft, or the spacecraft.* As CAREY does not disclose separate first and second parts, as well as a deformable rolling bellows arrangement, Applicant submit the expressly recited arrangement of the deformable rolling bellows arrangement being coupled *between said second part and a*

fixed part of one of the rocket engine, the aircraft, or the spacecraft, cannot even arguably be disclosed in the applied art.

Moreover, Applicant submits, at best, CAREY can only arguably describe (albeit improperly) the folded part being coupled between the first and second parts. Applicant submits that CAREY fails to provide any arguable disclosure of the folded part being coupled between the second part and a fixed part of the rocket engine, the aircraft, or the spacecraft, as recited in at least independent claim 20.

As CAREY fails to show at least the above-noted features of the invention, Applicant submits the art of record fails to show each and every recited feature of the invention. Therefore, Applicant submits the Examiner has failed to establish an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. § 102(b), such that the pending rejection is improper and should be withdrawn.

Further, Applicant notes that claim 24 further defines the deformable rolling bellows arrangement in such that manner that CAREY cannot even arguably disclose this subject matter. In particular, even assuming, *arguendo*, one ordinarily skilled in the art would understand the folded portion of CAREY's nozzle as being a rolling bellows arrangement (which Applicant submits one would not), Applicant submits that there is no logical interpretation of this portion of CAREY as showing *a first rolling bellows* structured and arranged *to form a seal for the gaseous fluid* that is connected to one of a circumferential area of said first part or another fixed part of the aircraft or spacecraft and to a circumferential area of said second part, and *a second bellows* structured and arranged *to form a further seal of the volume for the gaseous fluid limited by the first said rolling bellows*.

Moreover, Applicant submits that claims 21 – 28 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits CAREY fails to anticipate each and every recited feature of at least claims 21 – 28, such that the rejections of these claims are likewise improper and should be withdrawn.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 20 – 28 under 35 U.S.C. § 102(b) and indicate these claims are allowable in the next official communication.

Traversal of Rejection Under 35 U.S.C. § 103(a)

Applicant traverses the rejection of claims 33 and 34 under 35 U.S.C. § 103(a) as being unpatentable over CAREY in view of WILLIS (U.S. Patent No. 4,676,436. The Examiner acknowledges CAREY does not show a retaining device to brake movement of second part during extension of the second part, but asserts it would have been obvious to include such device in view of the disclosure of WILLIS. Applicant traverses the Examiner's assertions.

Applicant notes WILLIS is directed to a linkage and support system connecting two sections of a nozzle. However, like CAREY, WILLIS fails to disclose a closed volume formed at least in part by a *rolling bellows arrangement coupled between said second part and a fixed part of one of the rocket engine, the aircraft, or the spacecraft.*

As neither of the applied documents discloses the above-noted feature of at least independent claim 20, Applicant submits no proper combination of these documents can render unpatentable the invention recited in at least independent claim 20.

Further, as WILLIS fails to provide any arguable disclosure of a closed volume for moving one portion of the nozzle relative to another portion, Applicant submits this document fails to provide any articulated reasoning or rationale for modifying CAREY in any manner that would render the invention recited in at least independent claim 20 obvious under 35 U.S.C. § 103(a).

Further, while the Examiner asserts it would have been obvious to modify CAREY to include the linkage structure of WILLIS to brake movement of the second part as it is moved into the second operating position, Applicant submits the applied art fails to support these assertions.

As noted above, the bell-shaped nozzle of CAREY is a continuous element, such that, when unrolled, the materials would prevent the further extension of the nozzle. Since CAREY is a single material element, Applicant submits that WILLIS fails to provide any articulated reasoning for modifying CAREY, since breaking of movement appears to inherently occur when the material forming the nozzle is unfolded.

Additionally, Applicant notes that the linkage of WILLIS is attached to outside of a two piece nozzle formed by apparent rigid materials. However, as CAREY discloses a thin lightweight material intended to be inter-rolled in convolute form and later unrolled, it is not apparent whether the linkage of WILLIS could have been attached to this thin, lightweight material forming the CAREY nozzle and/or whether the weight of the linkage would structurally damage the material forming the CAREY nozzle, particular given the stresses that would be exerted on the nozzle material by the linkage during operation of the nozzle.

As the Examiner's rejection does not fully examine the subject matter described in each prior art document in order to determine whether it would have been obvious to modify CAREY to include the linkage of WILLIS and to determine whether, if so modified, the nozzle of CAREY would continue to operate in its intended manner, Applicant submits that Examiner has failed to show that embodiments of the invention recited in at least claims 33 and 34 would have been obvious under 35 U.S.C. § 103(a).

Moreover, Applicant submits that claims 33 and 34 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits CAREY fails to anticipate each and every recited feature of at least claims 33 and 34, such that the rejections of these claims are likewise improper and should be withdrawn.

Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 33 and 34 under 35 U.S.C. § 103(a) and indicate these claims are allowable in the next official communication.

Newly Submitted Claims are Allowable

Applicants submit that newly submitted claims 44 – 49 are allowable over the applied art of record. In particular, Applicants note that the applied art of record fails to anticipate or render unpatentable the combination of features recited in new claims 44 – 49.

Accordingly, Applicants request that the Examiner enter new claims 44 – 49 and indicate that these claims are allowable.

Application is Allowable

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

Authorization to Charge Deposit Account

The undersigned authorizes the charging of any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, to Deposit Account No. 19 - 0089 in order to maintain pendency of this application.

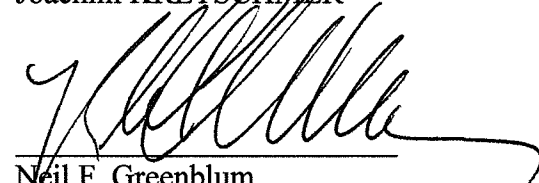
CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants' invention, as recited in each of claims 20 – 49. The claims have been amended to eliminate any arguable basis for rejection under 35 U.S.C. § 112. In addition, the applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,
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